

# INFORMATION REPORT

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25X1A

COUNTRY ' Yugoslavia

**CONFIDENTIAL**

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SUBJECT Construction of Long-Range Rockets

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1. The following are the characteristics of the long-range rocket of national construction being manufactured in the arms and munitions factory at Kacarevo:

Length : 7 meters  
Diameter : 0.85 meters  
Weight : 7 tons approximately  
Range : 300 kilometers approximately (sic)  
Maximum ordinate : 60 kilometers approximately  
Load of high explosive: 500 kilograms approximately

The dimensions are nearly half those of the German V-2.\*

2. The liquid fuels are contained in two separate tanks placed one behind the other. The oxidizer is tetranitromethane (alternately liquid oxygen) and the fuel is gasoline (alternately alcohol). The detonator and the explosive charge are in the nose, followed by a chamber housing the automatic control (guiding) apparatus, the electric batteries, the automatic guiding instruments, the gyroscope and the telecommand. Two tanks are placed along the axis, the smaller of which contains the fuel and the larger contains the oxidizer. A pipe, passing through the center of the rear tank, carries the fuel to the feed pump, while other pipes, 16 in number, feed the oxidizer to the pump. There are some additional pipes which carry the oxidizer and the fuel into the combustion chamber's sprinklers. At the rear end, a nozzle emits the combustion gas into the atmosphere. The operation is typical of rockets propelled by liquid fuel. The pumps are activated by the radio-controlled electrical motor. Four stabilizers which are equipped with rudders for direction or altitude, are situated in the rear and control movements along the trajectory. These are automatically controlled by means of compressed air and electrical systems.
3. The rocket is launched at an angle of elevation of 45 degrees by means of a frame constructed in reinforced concrete and placed in pits. The launching is initiated by an electrical spark. The descent on the target is almost vertical, and the final speed is reportedly supersonic. In addition to the gyroscope for automatic equilibrium, the control chamber also houses tanks of compressed air and hydraulic mechanisms for the internal controls, electric batteries for the radio-controlled guidance and direction apparatus, as well as a special very short-wave radio with a beamed antenna.

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4. The Yugoslav Ministry of Defense already has over 100 of these rockets at its disposal, and 50 more are soon to be completed. The platforms of reinforced concrete were constructed during the summer of 1949 in the mountainous region in the neighborhood of the Bulgarian frontier (near Piroet and Bor), and on the following heights:

| <u>Name</u>  | <u>Elevation</u> |
|--------------|------------------|
| Deli Jovan   | 1,201 meters     |
| Beljanica    | 1,360 meters     |
| Tnaj         | 1,566 meters     |
| Lisac        | 1,453 meters     |
| Kucaj        | 1,098 meters     |
| Leskovik     | 1,276 meters     |
| Suva Planina | 1,822 meters     |

5. Additional sites are located at altitudes of 1,131 and 1,452 meters south of Nis-Prokulje, and on Goljak Planina (in the triangle Mitrovica-Pristina-Vranje) at altitudes of 1,193 and 1,494 meters. Altogether 20 such launching sites have reportedly been constructed.

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Comment: Inconsistent with 300 kilometer range.

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